

TAXIDERMY OF RABBIT

presented by

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ND/23/SLT/FT/0004

BEING A PROJECT WORK SUBMITTED TO
THE DEPARTMENT OF
SCIENCE LABORATORY TECHNOLOGY
ENVIRONMENTAL BIOLOGY UNIT
INSTITUTE OF APPLIED SCIENCES (IAS)
KWARA STATE POLYTECHNIC, ILORIN
IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF
NATIONAL DIPLOMA (ND) IN
SCIENCE LABORATORY TECHNOLOGY

Supervised by

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2024/2025

CERTIFICATION

This is to certify that the research work carried out by BOLARINWA HAMEEDAH TAIWO with matriculation number ND/23/SLT/FT/0004 in Institute of Applied sciences (IAS) , Department of science laboratory Technology, kwara State polytechnic ilorin, kwara State.Has meet the requirements for the Award of National Diploma (ND).

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DEDICATION

I dedicate this project to Almighty God and to my parents MR AND MRS BOLARINWA

ACKNOWLEDGEMENT

My deepest and most profound gratitude extends to Almighty God, the source of all wisdom and preserverance , through his divine grace and unwavering guide from the very inception of this journey for the breath in my lungs, the passion in my heart, and the purpose in my mind, I offer sincere thanks.

To my esteemed project supervisor MR ALU S.O, words feel inadequate to fully convey my profound appreciation and deepest respect, your unwavering guidance, incisive intellect and relentless dedication were the cornerstones upon which this project was built. your ability to distill intricate problems into manageable steps, and your remarkable skill in significantly shaped the trajectory and quality of this research. This project stand as a testament to your exceptional mentorship, and the lessons learned under your tutelage will undoubtedly serve as a guiding light throughout my future academic and professional endeavors. Thank you for your extraordinary commitment and for transforming this academic journey into an enriching experience.

To my dearest parents MR AND MRS BOLARINWA, I appreciate your unwavering support, and endless sacrifices in my life and in the completion of this project. Your tireless efforts and your endless prayers have been a constant source of inspiration. Thank you for your profound wisdom and unconditional love.

I am also deeply indebted to Mrs GANA, who provided technical assistance data to this project, your expertise and willingness to assist were crucial in overcoming technical hurdles and accessing necessary information.

I also appreciate MR AGBAJE;HEAD OF DEPARTMENT:FOOD AND SCIENCE TECHNOLOGY for your timely assistance and word of encouragement,Thank you for being my Tutor and your belief in me,your patience with my demanding schedule,your unwavering support made this journey significantly more manageable and enjoyable.

Lastly,to my beloved sister, BOLARINWA BUSHROH AND KAREEMOH,I really appreciate you for your unwavering support and encouragement throughout this demanding period.
Thank you all for being part of this significant chapter in my academic journey.

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ABSTRACT

Taxidermy is an art to preserve the biological specimens with their skin in dry form which is quite expensive. The present study involves techniques which need less time and cheapest chemicals as sodium chloride, thymol 5% formal saline, simple items like needle, thread, flexible wires and containers. The technique is explained in detail in the text. The final product of the animal demonstrates all the anatomical features including the fur with desired posture. Natural History was asked to explain whether taxidermied rabbit belonged in a museum and could help museum visitors learn about rabbits.

CHAPTER ONE

Introduction

The process of taxidermying a rabbit involves a series of meticulous steps, each crucial for achieving a well-preserved and aesthetically pleasing result. Biological specimens like rats, mice, pigs, rabbits can be preserved along with their skin in dry form in lieu taxidermy. The art of taxidermy involves skinning or deciding. This technique is quite expensive and time consuming for animals, special molds are prepared to ensure proper fit of skin to final shape. A large amount of skill and artistic ability is needed to give life like appearance which needs expertise. It also involves chemicals and acids for tanning purpose. The other technique was simple injection of formalin to the animal and allowing it to dry naturally. But this is not suitable for educational craft or home use where life like appearance is derived. Various authors have used taxidermy and other methods to preserve in dry form, but the present innovative method involves less time, cheapest chemicals, and containers. Hence the present study has been undertaken.

Also museum professionals believe that physical encounters with real, authentic specimens foster awe-inspiring reactions among visitors that promote curiosity, engagement and critical reflection beyond that offered by replicas (Bunce in press, Eberbach & Crowley, 2005, Evans, Mull & Poling 2002, Hamp & Schwan, 2014, Kinchberg & Trondle 2012, Leinhardt & Crowley 2002, Roberts 1997, Watson & Werb, 2013). Lack of appreciation of authenticity is thought to undermine not only the aesthetic value of a museum visit but interfere with potential educational gains.

It is surprising, therefore that almost no empirical research has investigated how visitors interpret collections in natural history institutions in relation to their value as authentic and educational bio facts (objects of natural history).

Theoretically, there are two ways in which visitors may Reason about taxidermied animals in terms of their museum worthiness and educational value. The first is related to its authentic nature.

The origins of a taxidermied animal are in nature, not from a manufacturing process. A taxidermied animal provides a realistic and presentation of animal's skin (Poliquin, 2008) with many authentic features (usually with the exception of eyes, which are replaced with glass). In other words, a taxidermied animal has authentic properties owing to its natural origins. This can be contrasted with models of animal that are made from materials, such as wooden carvings, porcelain statues, or toys which can be considered inauthentic because they were manufactured.

The second concept that can be used to reason about the value of taxidermy which makes it distinct from museum artefacts relates to the ontological distinction between the living and non living. A taxidermied animal used to be alive. As noted by Poliquin (2008 p.127) "the life like appearance and innate stillness" of taxidermy enables intimate inspection of physiological details of the living animal that would be difficult if the animal was still alive.

The ability to reason about the presence or absence of authentic properties is fairly well established by the preschool years (Bunce & Harris, 2008, 2013, Flavell, Flavell & Green 1987; Harris & Kavanaugh, 1993; Moll Tomasello 2012; Wooley & Wellman 1990). In Bunce and Harris (2013), 3 to 5 year olds understood that toy Lego animals, such as a toy sheep are not authentic because they are only made of blocks and they have not got the right wool. This manipulation dramatically increased the number of children who referred to the presence of authentic properties of the real sheep and the absence of authentic properties of the Lego sheep.

Taken together, these findings suggest that preschoolers have a good understanding of authenticity in relation to real animals and toys, but this improves when judgements of authentic and inauthentic items are made relative to one another

The ability to reason about the distinction between the living and the dead is also present by the preschool years. preschoolers attribute biological properties including growing and breathing to animate entities, such as animals, but not to inanimate entities, such as chairs (Grief et al. 2006). They also know that internal parts, such as bones and a brain, are suitable for animals but not machines (Golffried & German 2005; scaife & Van Duren, 1995). From around the age of 6 years, children develop an understanding that life is supported by the presence of internal organs. jaakola and slaughter (2002) found that 92% of 6-year olds but only 33% of 4-year olds, made spontaneous reference to Life like or staying alive when asked about the purpose of a heart. Around the age of 6 years, children also begin to understand that death is irreversible and leads to the lessening of bodily functions (Bering & Bjorklund, 2004)

Taken together, these studies demonstrate that even quite young children have some understanding of the living and non living distinction and this evidence suggests that this may contribute to their understanding of the museum worthiness and educational value of taxidermy. The current study assessed the extent to which 4-10 year olds and adults understood the value of museum taxidermy in terms of whether it belongs in a museum and can help visitors learn about animals.

Specifically, visitors were asked why a taxidermied rabbit belongs in a museum and could help visitors learn about rabbits. In line with previous research, the first hypothesis was that there would be an increase with age in the number of visitors who would judge the taxidermied rabbit as museum worthy and educationally valuable. It was also expected that visitors would explain their decisions on the basis of the presence or absence of authentic properties or on the basis of the living and non living distinction.

In summary, the taxidermied rabbit was presented in one of the three independent conditions. The first two conditions reflected the way in which taxidermy is curated in museums, either as a touchable object or inside an exhibition case. In a third experimental condition visitors were presented with a taxidermied rabbit alongside a realistic soft toy rabbit following their pair presentation method used in Bunce and Harris (2013).

This condition was included to test the second hypothesis that the presence of the toy rabbit would serve to increase the number of visitors who judged the taxidermied rabbit as museum worthy and educational value on the basis of authenticity.

Literature review

The Historical Tapestry of taxidermy and the Rabbit:

The earliest forms of animal preservation were likely rudimentary focused on the practical need to retain hides and furs. As early as ancient Egypt techniques for mummifying animals existed, showcasing a long -standing human interest in preserving animal forms (Hagen,2006). However, the development of modern taxidermy aiming for lifelike representations began to take shape in the 18th and 19th centuries. This era saw the rise of natural history museums and a growing demand for preserved specimens for scientific study and public display (Morrison,2010). within the historical context, the rabbit, a common and widely distributed mammal, would have inevitably been a subject of early taxidermy efforts. While specific detailed records focusing solely on rabbit taxidermy from these early periods might be scarce, references within broader texts on taxidermy techniques for small mammals likely exist.

The Victorian era witnessed a peculiar yet significant chapter in the history of rabbit taxidermy: anthropomorphic taxidermy. The whimsical and often elaborate dioramas created by figures like Walter Potter, featuring rabbits engaged in human activities, offer a fascinating, Albert unconventional perspective on the craft during this time (Auchterlonie 2017). These examples, while not strictly scientific, demonstrate keen understanding of rabbit anatomy and the possibilities of manipulating preserved forms .

The 20th and 21st centuries have seen a shift towards more naturalistic taxidermy,, driven by advancements in materials technique, and a greater emphasis on anatomical accuracy for both scientific and artistic purposes (knell,2007). Contemporary literature on taxidermy provides detailed guides and instructions applicable to a range of animals, including specific considerations for small delicate mammals like rabbits.

The literature on the taxidermy of rabbits reveals a fascinating intersection of history, scientific technique, artistic expression and ethical considerations. From the whimsical anthropomorphic creation of the Victorian era to anatomically accurate mounts used in modern science and art, the preservation of rabbits has evolved significantly.

The delicate nature of these creatures demands specialized skills and a deep understanding of their anatomy. As the field continues to evolve, ethical sourcing and respectful practices remain paramount, ensuring that the taxidermy of rabbits serves as valuable scientific, educational and artistic purposes while upholding responsible stewardship of the natural world.

CHAPTER TWO

MATERIAL AND METHOD INVOLVES IN RABBIT TAXIDERMY:

The process of taxidermying a rabbit involves a series of meticulous steps, each crucial for achieving a well-preserved and aesthetically pleasing result. Here is an overview:

Materials involve in rabbit taxidermy :

- Cutting and fleshing Tools: Knives, scissors, and scrapers.
- Preservation agents: Non-iodized salt, tanning chemicals, alcohol, Glycerin, borax and formalin.
- Form materials: Wood, wire, wood wool, poly urethane foam forms, clay, epoxy putties
- Adhesives: Hide glue, hot glue, super glue, ear adhesives.
- Sewing supplies: Needle, strong threads.
- Measuring Tools: calipers, rulers, measuring tapes
- Mounting Accessories: Mounting stands, wire, Screws.
- Safety Equipment: Gloves, respirators.

Methods involve in rabbit taxidermy:

-Specimen Acquisition and preparation: Ethical sourcing is paramount in modern taxidermy. The use of legally obtained specimens, such as road kill animals from regulated culling programs, or those that have died naturally. Once acquired, the specimen requires careful handling to prevent damage to the fur and accurate measurement for creating a properly sized mount (Johnson, 2015).

-Skinning and fleshing: This is a delicate stage. It involves careful removal of the skin, minimizing tears and ensuring the preservation of as much fur as possible. Detailed anatomical knowledge is crucial here as highlighted in practical taxidermy manuals (e.g. prey, 2000).

Fleshing, the subsequent removal of all muscle tissue and fat from the skin is critical for proper preservation and prevents decomposition.

Specialized tools and techniques for small mammals are used .

-Skin preservation: Various methods are employed to preserve the rabbit skin, preventing bacterial growth and ensuring its long-term stability.

Tanning, using chemical solutions, is a common method that renders the skin durable and pliable (Richard, 2008). Alternatively, dry preservation techniques using borax or other desiccants are sometimes employed for smaller specimens. The choice of preservation method is often discussed in comparative taxidermy guides, weighing factors like skin thickness and intended use.

-Creating the mount (Armature/manikin):The internal structure that gives the mounted rabbit it's form is typically constructed from materials like carved foam,wire armatures,or pre-made manikins designed specifically for rabbits.The importance of accurate anatomical representation was emphasized at this stage to ensure a natural posture (Schmidt,2012). Instructions on taking accurate body measurements and translating them into a realistic armature are common in instructional taxidermy texts.

-Mounting and finishing:The preserved skin is carefully positioned and adhered to the armature , requiring patience and attention to detail.Guidance and stretching, sewing and manipulating the skin to achieve a smooth and natural fit.

The final stages involve setting the eyes (often artificial), positioning the ears(which require careful support due to their delicate cartilage) and grooming the fur to restore it's natural appearance, Advanced techniques such as hair brushing for subtle color enhancements,are also discussed in more specialized texts (De pree,2019).The mounted animal is often placed in a naturalistic setting with artificial foliage,rocks or other elements.

CHAPTER THREE

Results

The method of the taxidermy of rabbit results in the preservation of its skin and fur over an artificial form, creating a life like representation of the animal for display or study.

The rabbit's skin is meticulously prepared and shaped often stuffed with materials like cotton or foam, to mimic its natural contours. The final product can be a mounted display, a study skin, or a museum exhibit, depending on the intended purpose. The specimen prepared demonstrate all the anatomical features with desired posture.

The Art of presentation and maintenance : Rabbit Can be presented in a natural environment, they can be posed in more playful or anthropomorphic ways, Taxidermied rabbit can be incorporated into museum exhibits.

The Appeal of Rabbit Taxidermy: Rabbit possess a unique charm and grace, making them excellent subjects for taxidermy, whether displayed in a natural or anthropomorphic pose. Rabbit taxidermy allow for creative expression whether it's a lifelike mount or a stylized depiction. Also taxidermied rabbits can be valuable tools in education showcasing the anatomy and morphology of this fascinating mammal.

Maintenance and conservation: Specimens should be protected from insects and rodents by ensuring proper storage and cleaning. Exposure to sunlight humidity, and extreme temperatures can damage the fur and skin, so proper storage and display environments are crucial. Regular inspection and cleaning can help maintain the specimen's beauty and longevity.

By understanding the ethical considerations, practical techniques and the importance of conservation, those interested in this craft can create stunning and enduring pieces that showcase the beauty and wonder of the natural world.

CHAPTER FOUR

Discussion

Although taxidermy gives better anatomical grounding, it involves a lot of processes. The taxidermist and the curator have to realize the form and lives of beauty with good anatomical background and knowledge. The word taxidermy was derived from the Greek word 'taxis' meaning fixing and 'derma' means skin. It involves record keeping i.e., the measurements of tail, body length, sex, mounting position with sketch on paper.

Next step involves skinning. The skin is completely removed and preserved with carbon tetrachloride, alcohol and sodium arsenite paste. The third step involves mounting paper body with the help of plaster of Paris mold is prepared along with the help of nails and wires and finally a temporary base is prepared with the help of skin. This finishing is done with colored glasses, eyes, etc.

The taxidermal technique helps in preservation of shape, color, attitude and expression of body itself as seen in live condition. But the entire procedure involves patience, chemicals and much practices. Some of the procedure are patented. Jackson and Rankin (1973) patented their technique under US patent No. 3780542 dated 25-12-1973 under the title.

Method for mounting and preserving animals without evisceration, they did not wound opening, they injected formalin 10% with formalin neutralizer, mould inhibitor, odorant and setting agent which is periodically repeated until the animal assumes proper form and become sufficient hard and stiff to support itself.

The formalin neutralizer has to be imported from Carolina.

Biological supply; Burlington, N.C, USA. Similarly odorant called "purepac" also to be imported from the purepac company Elizabeth, N.J, USA.

The technique involves injection of formalin, formalin neutralizer and setting agent which contain plaster of Paris, NaCl and water.

For skin preparation Alum solution has to be rubbed to maintain its texture. Once again the setting agent is injected into the abdomen and finally sutured. Ocello (1995) used the following procedure which was patented under US patent NO. 5431952 involving many imported chemicals like silicone elastomer, and 1,1,1 trichloroethane and well set laboratory to carry out the operation.

Browne (1869) was the first taxidermist to describe different methods of skinning and mounting of birds. He also described the regional anatomy in relation to mounting the specimen of pigeon. Metcal (1981) described various steps in collection of birds, killing live birds, care of specimens tools, preservation paste, skinning and he focused on removal of fat. For mounting he used wires for body, legs, tail and created artificial body.

The Disadvantages of the above methods were importing chemicals and also time consuming. Thus, it is uneconomical for developing countries carrying negative impact on the present method of preservation.

CONCLUSION

The present technique has many advantages over other methods. It is simple, cost effective and gives all the details anatomy.

The current study demonstrates that children have an emerging understanding of the value of taxidermy in terms of its status as a museum worthy and educational bio fact from the age of 4 years. This understanding develops substantially during early childhood such that by the age of 8 years, children understand that taxidermy is valuable by virtue of the ability to study details of the animal, and its authentic properties.

The current study also tested the possibility that young children's appreciation of the value of museum taxidermy could be improved by presenting it alongside a soft toy version of the taxidermied animal. This manipulation was highly successful, substantially more children demonstrated an understanding of the value and authentic nature of taxidermy when it was presented in comparison to the toy.

The results of this study thus suggest that museum professionals should consider including toy animals as part of their educational offering to help young children engage with and learn from animal taxidermy.

By doing so, practitioners stand to foster awe-inspiring reactions to their natural history collections that make for a meaningful museum visit. This adds educational craft and museum use where life like appearance is desired.

REFERENCES

- Bering, j.m& Bjorklund, D.F (2004).The natural emergence of reasoning about the afterlife as a developmental regularity. *Developmental psychology*, 40 (2), 217-223.
- Browne in *Artistic and scientific Taxidermy and modeling*, Adams and Charles. Black London 1896.
- Bunce, L;(in press) Appreciation of authenticity promotes curiosity: implications for object -based learning in museum. *journal of museum Education*.
- Bunce, L;(2010) stil l life? what museum taxidermy can tells about children's conceptual development.
- Manuscript submitted for publication.
- Dillion, j; Dewitt, j ,program E, Irwin, B, Crowley k; Haydon R...xanthoudat;m (2016).A learning Research Agenda for Natural History museum
- Dutton, D, (2003). Authenticity in art.inj. levinson(td),*The Oxford handbook of aesthetics* (pp. 258-274).New York ,NY: Oxford University press.
- Eberbach,c.,& Crowley,k,(2005).From living to virtual: learning from museum objects. *curator : The museum journal* 48,317-388.
- Flavell, J.H., Flavell, E. R;& Green,F.L; (1987).Young children's knowledge about the apparent -real and pretend-real distinctions *Developmental psychology*, 23,816-822 doing;apa .org
- Frazier, B,N;Gelman, S.A.(2009). Developmental changes in judgements of authentic objects . *Cognitive development*.24,284-292.
- Gjersoe, N.L; Newman,G.E; chituc,v & Hood,B. (2014). Individualism and the extended:self Cross -cultural differences in the valuation of authentic object. *plos ONE*, 9,e90787/journal.pone.0090787.
- Grief ,M.L; Nelson,D.G.k;Keil ,F.C,& Gutierrez, F (2006). What do children want to know about animals and artifacts?Do-main specific requests for information. *Psychological science*,17.455-459,doing.10.1111/j.1467-9280.2006.01727.x
- Harris,P.L;& kavanaugh,R. D.(1993). Young children's understanding of pretense .*monographs of the society For Research in child Development*, 58(1, serial NO.231).doi:10.2307/1166074
- Horman MJ. *Taxidermy lessons*.The blue beaver Taxidermy school, Brooklyn;1931
- Inagaki,k &Hatano,F.(1996). Young children's recognition of commonalities between animals and plants.*Child development* ,67,2823-2840,doi:10.1111/j.1467-8624.tb01890.x
- Jaakola, R.O.,& slaughter,v.(2002). children's body knowledge: understanding "life as a biological goal ,*British journal of Developmental psychology*, 20,325-342,doi:10.1348/028151002320620352 kinchberg ,v, & Trondle ,m. (2012). Experiencing exhibitions:A review of studies on visitor experiences in museums.*Curator :The museum journal* ,55, 435-452 doi:10.111/j.2151-6952.2012.00167x
- Leinherdt,G, & Crowley,k,(2002). objects of learning, objects of talk: changing minds in museums inS. G .Paris (t d), *Perspectives on children's object -centered learning in museums* (pp.301-324).
- Mahwah, NJ: Erlbaum.
- Metcalf j C. *Taxidermy:A complete manual* 1st End, Gerald Duck worth and co.ltd; 1981

Peter j ocello, method for preservation of biological tissue.US patent NO.5431952 dated 11th July 1995

William DJ,Ray RR. Method for mounting and preserving animals without evisceration.US patent No.3780452 dated Dec 1973